

ENVIRONMENTAL ASSESSMENT  
Fisheries Division  
Montana Fish, Wildlife & Parks  
Boles Creek Fish Screening

General Purpose: The 1995 Montana Legislature enacted sections 87-1-272 through 273, MCA that direct Montana Fish, Wildlife & Parks (FWP) to administer a Future Fisheries Improvement Program (FFIP). The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. This legislation was amended again in 2013 to open the program to all native fish species (statute section 87-1-283). The program now calls for the enhancement of native fish through habitat restoration, natural reproduction and reductions in species competition by way of the FFIP.

The FFIP tentatively plans to provide partial funding to upgrade an existing irrigation diversion located near stream-mile 1.5 on Boles Creek to eliminate entrainment of, improve migration corridors for and restore channel integrity for native trout populations.

I. Location of Project:

This project will be conducted on Boles Creek, located southwest of Seeley Lake (near Placid Lake) within Township 16N, Range 16W, Section 25 in Missoula County (Figure 1).

II. Need for the Project:

One goal within FWP's six-year operations plan for the fisheries program is to "protect, maintain, and restore native fish populations, their habitats, life cycles, and genetic diversity to ensure stewardship of native species." Boles Creek in western Montana supports populations of adfluvial and fluvial bull trout and westslope cutthroat trout, which are federally recognized (threatened and sensitive, respectively) and Species of Concern in Montana. It also supports a wild kokanee salmon spawning run from Placid Lake. The goal of this project is to prevent entrainment of all fish, but especially bull trout, westslope cutthroat trout, and kokanee in an irrigation diversion. The project would improve migratory corridors within Boles Creek.

III. Scope of the Project:

Boles Creek is a tributary to Placid Lake and supports populations of bull trout, westslope cutthroat trout, kokanee salmon, and other non-game species. Many projects have been completed in the Blackfoot River drainage and this project would continue the improvements to native species. Boles Creek has been designated critical bull trout habitat and is considered the last known bull trout stream in the Placid Lake watershed. This project addresses an existing irrigation diversion that creates channel impacts, fish passage issues and entrainment of native trout. Community richness and population

densities of fishes in the main stem Blackfoot River closely reflect the quality of nearby tributaries making the broad level, systematic restoration program across the entire watershed fundamental to the success in recovering native trout. The proposed project on Boles Creek is a partnership effort that will address multiple limiting factors affecting native trout. The existing structure is a wooden dam that is known to entrain salmonids and inhibits passage at certain flows. The wooden structure would be replaced with a rock cross-vane that allows fish passage (Figures 2, 3). A coanda fish screen capable of diverting 2.5 cfs would be installed in the stream to ensure water rights are retained while maintaining fish passage. Approximately 8 miles of fish habitat would be reconnected.

This project is expected to cost \$96,770. Of this total, the FFIP would be contributing \$26,625 to complete the project. Other contributions, considered matching funds, are listed below:

Contributor	In-kind services	In-kind cash
USFWS Partners of Fish and Wildlife Service		\$9,800
The Nature Conservancy		\$5,000
United States Forest Service		\$5,000
MTU-Log Jam Presents		\$20,000
Private Landowner		\$5,000
Montana Trout Foundation		\$12,000
BBCTU	\$14,345	
Total matching funds: \$71,145		

#### IV. Environmental Impact Review Checklist:

#### **Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment**

Project Title: Boles Creek Fish Screening and Passage

Division/Bureau: Fisheries Division (Fish Management Bureau)

Description of Project: Installation of a fish screen and passage structure at an irrigation diversion on Boles Creek

#### **A. POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT**

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Geology and soil quality, stability and moisture				X		
2. Air quality or objectionable odors				X		
3. Water quality, quantity and distribution (surface or groundwater)			X			X

4. Existing water right or reservation				X		X
5. Vegetation cover, quantity and quality				X		
6. Unique, endangered, or fragile vegetative species				X		
7. Terrestrial or aquatic life and/or habitats			X			X
8. Unique, endangered, or fragile wildlife or fisheries species			X			X
9. Introduction of new species into an area				X		
10. Changes to abundance or movement of species			X			X

## B. POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

Will the proposed action result in potential impacts to:	Unknown	Potentially Significant	Minor	None	Can Be Mitigated	Comments Provided
1. Noise and/or electrical effects				X		
2. Land use				X		
3. Risk and/or health hazards				X		
4. Community impact				X		
5. Public services/taxes/utilities				X		
6. Potential revenue and/or project maintenance costs				X		
7. Aesthetics and recreation				X		
8. Cultural and historic resources				X		X
9. Evaluation of significance				X		
10. Generate public controversy				X		

## V. Explanation of Impacts to the Physical Environment

### 3. Water quantity, quality, and distribution.

No changes in streamflow would occur in Boles Creek as a result of the proposed project. Short-term increases in turbidity may occur during project construction. To minimize turbidity, operation of equipment in the stream channel will be minimized to the extent practicable. A 318 authorization will be obtained, if necessary, to meet short-term water quality standards.

### 4. Existing water right or reservation.

Although this project will affect an irrigation diversion, it will not impact any existing water

rights or reservations since the fish screen will be sized for the landowner's water right.

7. Terrestrial or aquatic life and/or habitats.

This project would stabilize the bank in the immediate reach of the diversion and restore fish passage. A fish screen will be integrated into a rock structure and healthy aquatic and terrestrial habitat will be encouraged. The project will increase access to aquatic habitat.

8. Unique, endangered, or fragile wildlife or fisheries species.

This project will benefit bull trout and westslope cutthroat trout, which are federally recognized and Species of Concern in Montana. Kokanee salmon are also a locally unique and important species. The impacts on this species due to this project are predicted to be positive, potentially increasing recruitment and survival.

10. Changes to abundance or movement of species.

All age classes of salmonids that encounter the screen would be screened and kept in the stream. This is expected to significantly increase fish survival and abundance. The stream restoration will also improve migration corridors for all species. Any change to abundance and movement is expected to be positive.

VI. Explanation of Impacts to the Human Environment

8. Cultural and historic resources.

No cultural or historical resource impacts are anticipated. However, the State Historical Preservation Office will be notified of the project, and any potential concerns will be addressed.

VII. Narrative Evaluation and Comment.

There are no anticipated cumulative effects.

VIII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative.

If no funding is provided through the FFIP, the applicant would have to seek additional sources of funding to complete the project, or no fish screen would be installed. Bull trout, westslope cutthroat trout, kokanee salmon, and other fishes would continue becoming entrained in the irrigation diversion and passage would be restricted.

2. The Proposed Alternative.

The proposed alternative intends to provide partial funding through the FFIP to eliminate fish entrainment and improve migration corridors for native trout and kokanee salmon in Boles Creek.

IX. Environmental Assessment Conclusion Section.

1. Other groups or agencies contacted or which may have overlapping jurisdiction:

Montana Department of Environmental Quality  
North Powell Conservation District  
U.S. Army Corps of Engineers  
U.S. Fish & Wildlife Service

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

None.

3. Is an EIS required?

No. We conclude, from this review, that the proposed activities will have an overall positive impact on the physical and human environment, and will therefore not require the extensive analysis associated with an EIS.

4. Level of public involvement.

The project application to the FFIP has been posted on the FWP webpage for public comment. No comments have been received to date. The proposed project was reviewed and supported by the public review panel of the FFIP. The proposed project also will be reviewed by the Fish & Wildlife Commission, and funding will be contingent upon their approval. The EA will be distributed to all individuals and groups listed on the cover letter and will be published on the FWP webpage: [www.fwp.mt.gov](http://www.fwp.mt.gov).

5. Duration of comment period?

Public comment will begin January 3<sup>rd</sup> and be accepted through 11:59 PM, February 2<sup>nd</sup> 2020.

6. Person(s) responsible for preparing the EA.

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## BOLES CREEK VICINITY MAP

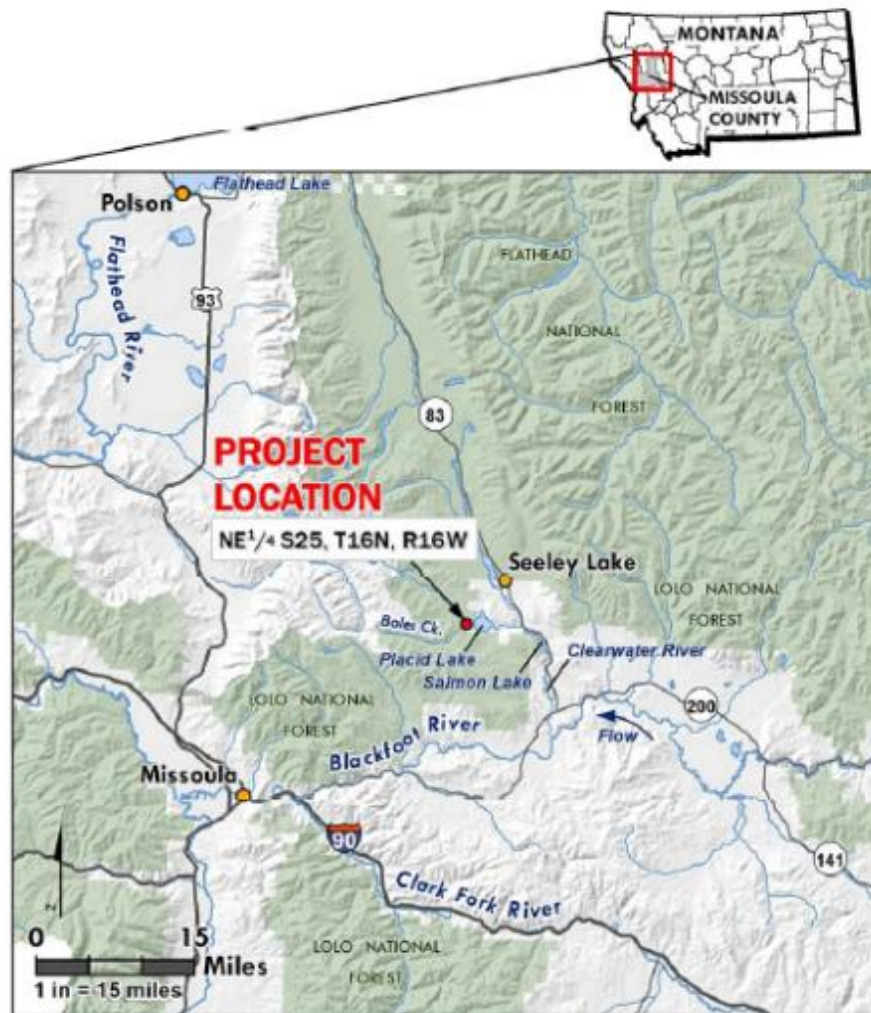


Figure 1: Project location (photo courtesy of River Design Group)



Figure 2: Plan view (Courtesy of River Design Group)



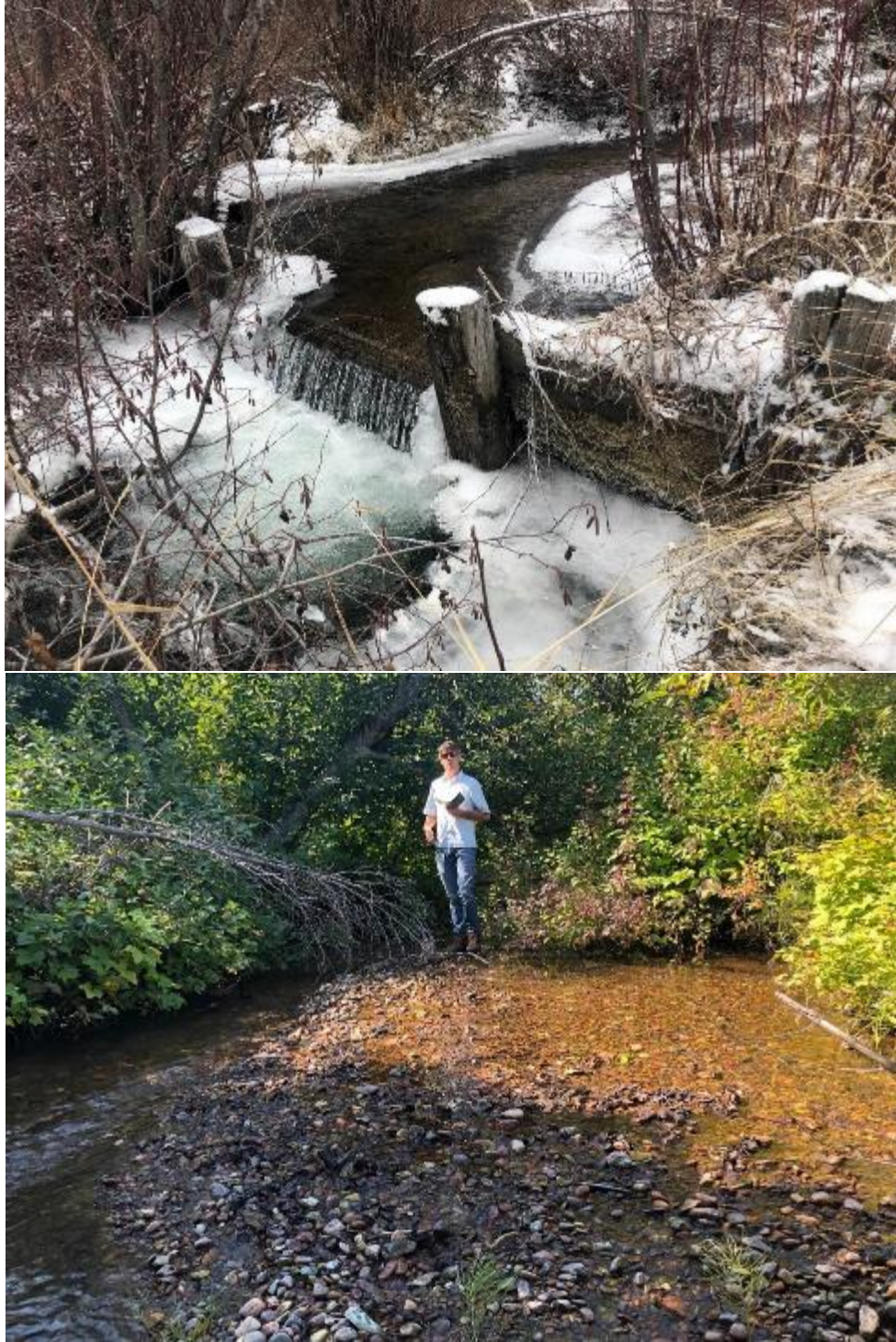


Figure 3. Current conditions